United States Department of Agriculture

Natural Resources Conservation Service

Colorado Basin Outlook Report February 1, 2013

Photo is courtesy of Lenny Lang, Soil Conservationist out of Grand Junction, CO. It was taken at the Mesa Lakes snow course west of Grand Junction on 1/31/2013, while Lenny and Russ Knight were performing their snow surveys. They measured 43 inches of snow containing 10.6 inches of water at the course.

REMINDER! We are soliciting field work photos from our snow surveyors this year. Each month we will pick one to grace the cover of this report! The photographer will be given proper credit of course. Please include information on where, when and of who/what the photo was taken.

Basin Outlook Reports
and
Federal - State - Private
Cooperative Snow Surveys

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How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

Colorado
Water Supply Outlook Report
February 1, 2013

Summary

January brought cold temperatures and little moisture to Colorado until the very last week when a significant snow storm hit most of the state. Areas near Steamboat Springs and Durango received upwards of 18 inches during the last week of the January, yet due to the dry start to the month, statewide snowpack ended up being only marginally better than the previous month. Increased snowpack percentages across southwestern Colorado were offset by significant decreases in the northeastern basins and all major basins remain below normal for this time of year. Consecutive months of below average snowpack accumulation are statistically decreasing the possibility of reaching normal conditions by April. Last year's below average snowpack did not offer any buffer to our current situation. Currently, reservoir storage volumes across the state are at 69 percent of average and 66 percent of last year's storage. The February 1 streamflow forecasts reflect the below average snowpack conditions throughout the state. The San Miguel, Animas, Dolores and San Juan basins are the only areas in the state where forecasts for April to July runoff volumes improved this month. Water users in all basins should start planning for below average surface water supplies this season. The potential for shortages this season is great.

Snowpack

Snowfall across Colorado was nearly nonexistent for most of January. During this time snowpack percentages were decreasing daily as the gap between current conditions and long-term normals widened. The situation began to improve during late January when storm systems brought much needed moisture to the state. The storms were not enough to tip the scales to normal, but they did help halt the downward slide. Statewide snowpack was at 72 percent of normal as of February 1. The basins that benefited the most from these storms were the basins in the southwest region of the state. The snowpack in the Upper Rio Grande basin increased from from 65 percent of normal on January 1 to 78 percent of normal on February 1. The combined San Miguel, Dolores, Animas and San Juan basins jumped 18 percentage points in January; from 70 percent of normal to 88 percent of normal on February 1. The Arkansas and Gunnison River basins each showed a nominal increase in snowpack percentage compared to last month. The remaining basins in the state showed an overall decline in the percent of normal from what was reported on January 1. The South Platte basin had the largest departure from last month's report. The snowpack in this basin dropped 13 percentage points this past month, declining from 67 percent of normal on January 1 to just 54 percent of normal February 1.

Precipitation

Precipitation across the state during the month of January was 83 percent of average. Statewide totals were influenced by above average monthly totals recorded in the Upper Rio Grande and the combined basins of the San Miguel, San Juan, Dolores and Animas Rivers. During January the Upper Rio Grande basin received precipitation that was 107 percent of average for this time of year and precipitation in the southwest basins was 120 percent of average. The Gunnison basin came in at 90 percent of average for the month. The remaining basins received between 69 and 72 percent of average precipitation during January with the exception of the South Platte Basin. The South Platte basin recorded just 50 percent of the average precipitation for the month. Year to date precipitation for the state remains below average for this time of year; as of February 1 total precipitation was just 72 percent of average.

Reservoir Storage

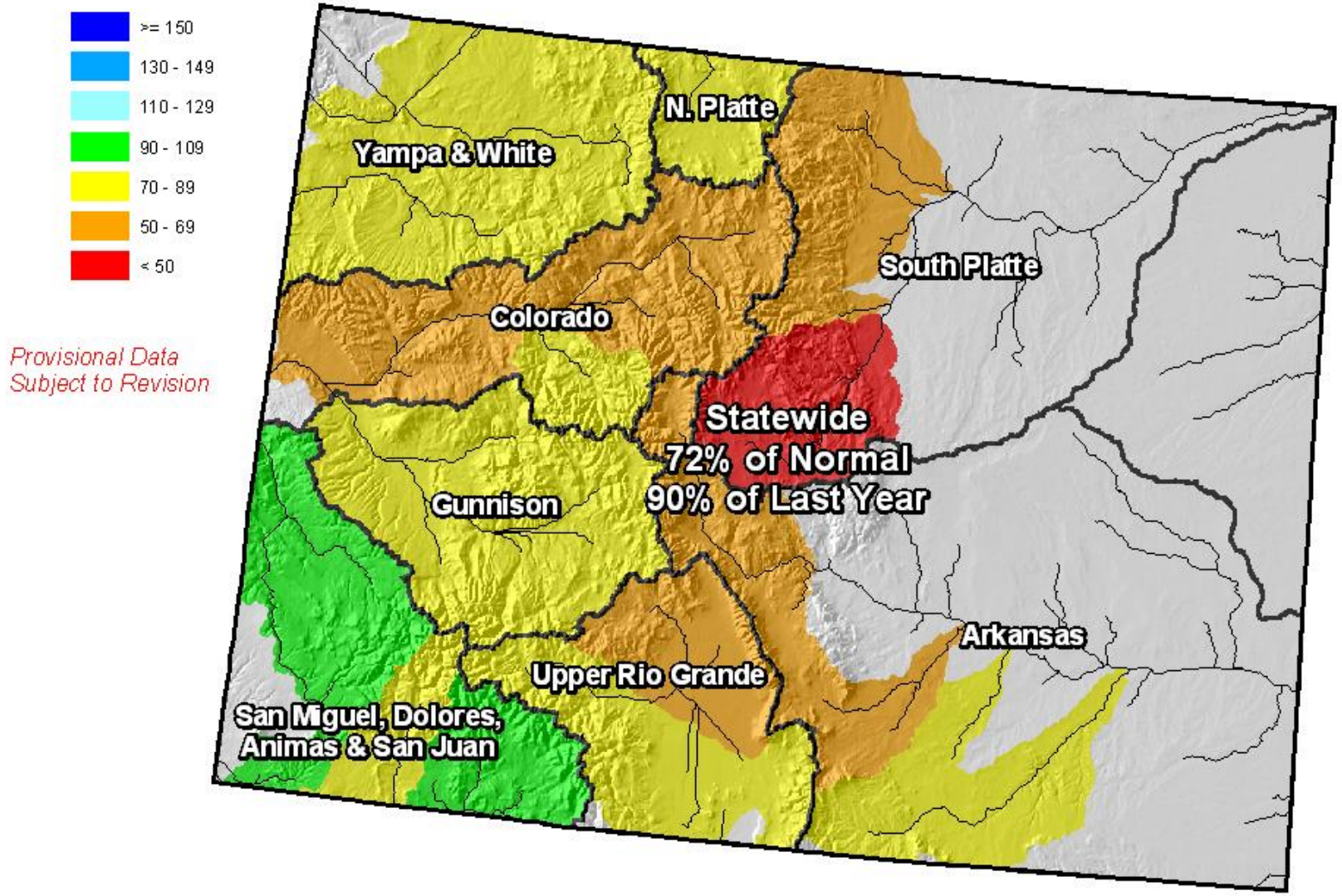
Due to last winter's poor snowpack, reservoir storage volumes continue to track below average levels. At the end of January reservoirs within the state were storing 2,311,000 acre feet of water. At this same time in 2012, reservoirs in the state held 3,606,000 acre feet. Below average storage volumes were reported at the end of January in the Arkansas, Gunnison, Colorado, South Platte, Upper Rio Grande and the combined San Juan, Animas, Dolores, and San Miguel basins. The greatest departure from average was in the Upper Rio Grande basin which reported its reservoirs volumes at just 51 percent of average. The Yampa and White River basins reported reservoir storage to be 103 percent of average and 85 percent of last year's storage. The storage in the Yampa and White basins may currently be above average, but these basins have the smallest reservoir capacity in the state.

Streamflow

Streamflow forecasts across the state reflect the below normal snowpack conditions measured on February 1. Forecasts for all points across Colorado are calling for below normal seasonal streamflow volumes this spring and summer. The lowest forecasts, as a percent of normal, occur in the Arkansas and South Platte basins. Forecasts in these basins are less than 65 percent of normal and as low as 45 percent of normal for the April to July time period. Forecasts for the Colorado, Gunnison, and Yampa and White basins have declined from those issued last month; expected streamflow volumes in these basins generally range from 50 to 70 percent of normal. As a result of the large snowfall amounts received in January, current runoff forecasts in the Upper Rio Grande and the combined San Juan, Animas, Dolores and San Miguel basins have improved somewhat from last month's predictions. It is important to note that at this point in the season the mountains have typically accumulated 60 percent of their annual snowpack in Colorado. The potential for recovering to normal conditions at this point in the season is not promising, but it is possible if we see exemplary spring conditions.

Colorado Snowpack Map

Percent of Average



Current as of February 1, 2013

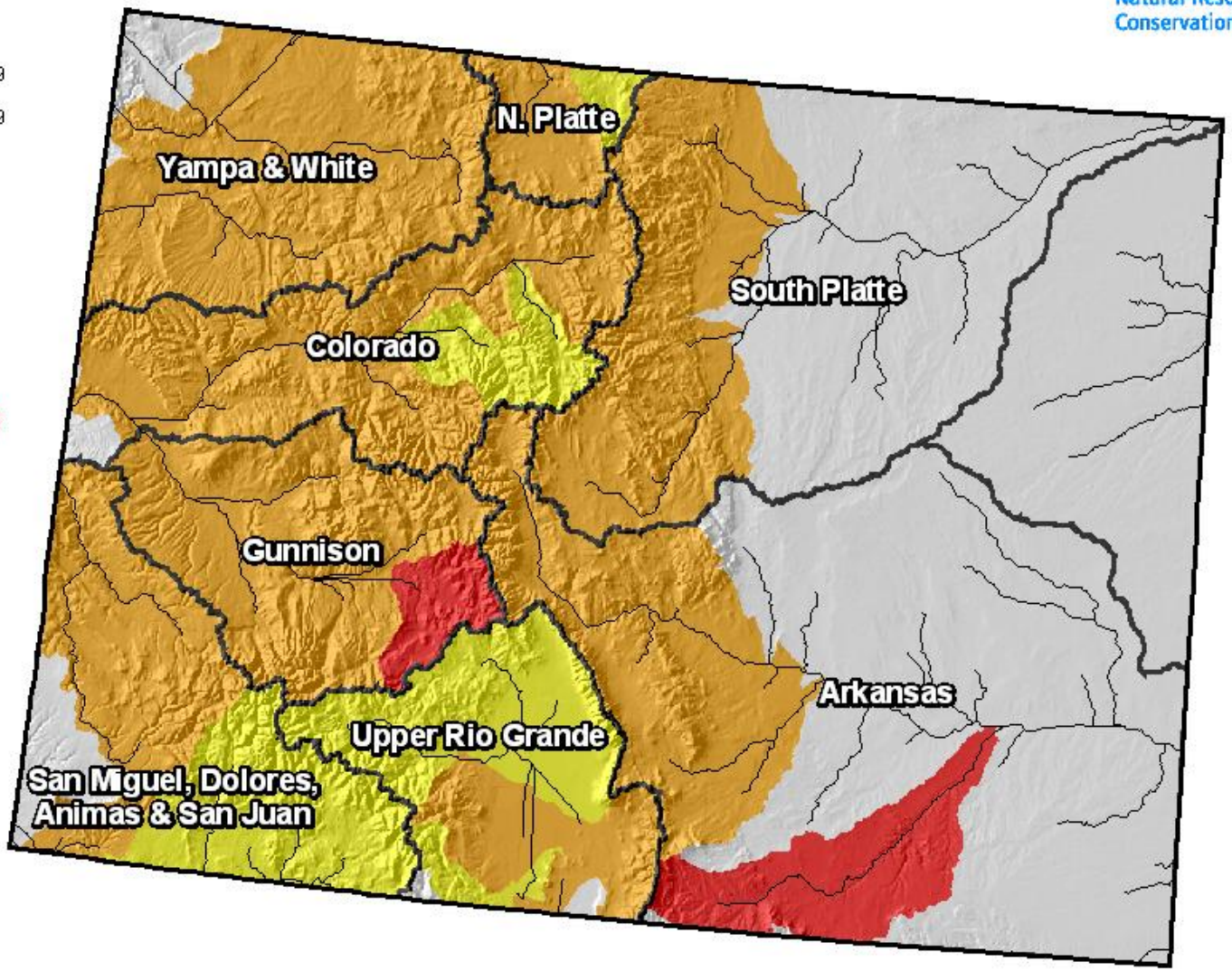
Colorado Streamflow Forecast Map

NRCS
Natural Resources
Conservation Service

Percent of Average

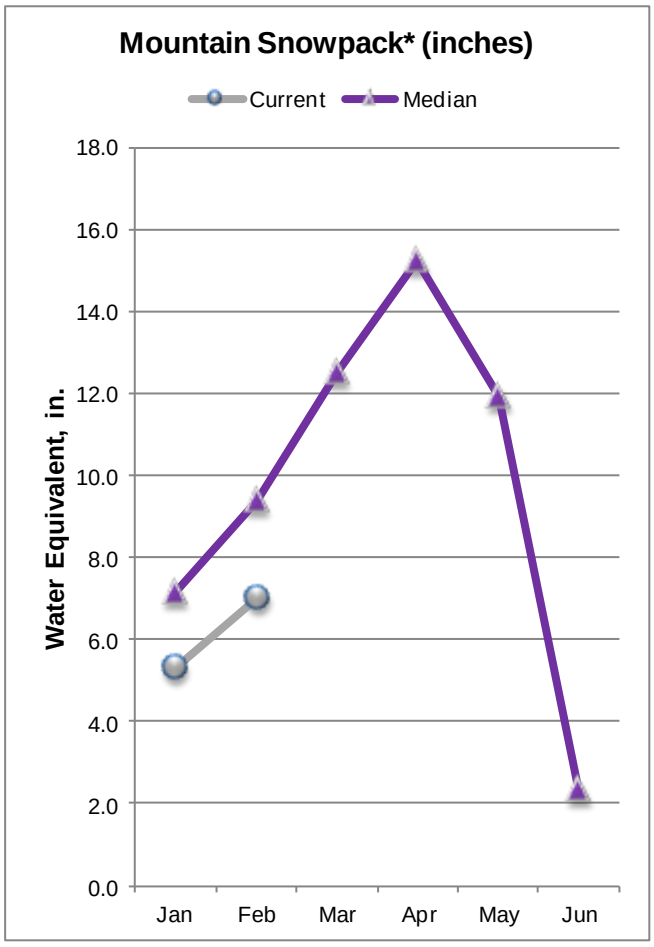
- >= 150
- 130 - 149
- 110 - 129
- 90 - 109
- 70 - 89
- 50 - 69
- < 50

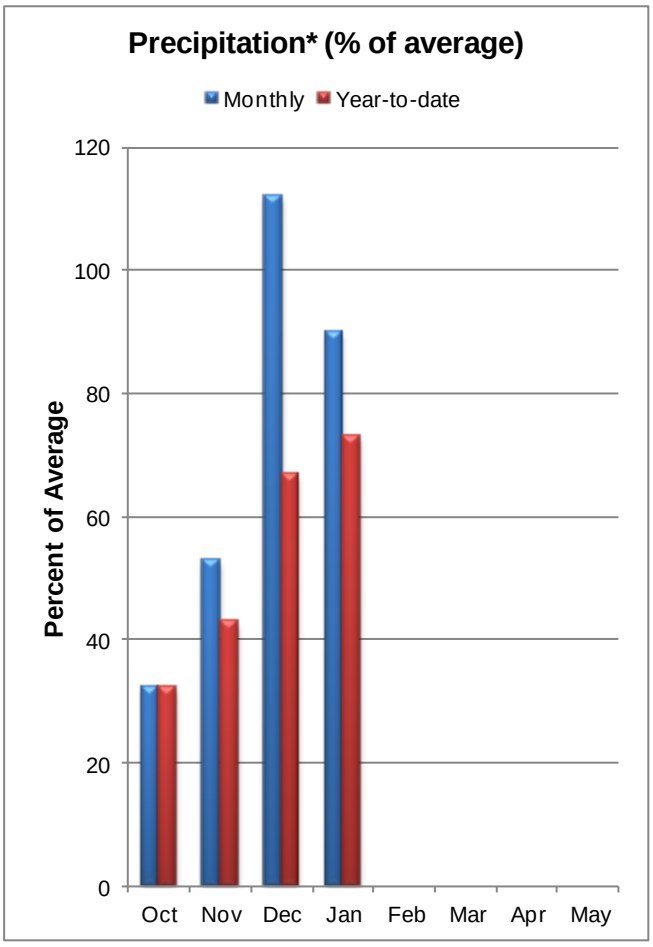
Provisional Data
Subject to Revision



Current as of February 1, 2013

GUNNISON RIVER BASIN
as of February 1, 2013





*Based on selected stations

Snow accumulation in the Gunnison River basin so far this water year has been characterized by long dry periods punctuated by a few large storm systems. The most recent storm system at the end of January significantly boosted the snowpack percentage. By January 25th the snowpack had dropped to just 63 percent of normal; the end of month storm boosted the snowpack to 75 percent of normal as of February 1. Precipitation recorded at SNOTEL sites within the basin during the month January was a respectable 90 percent of average. The water year to date precipitation total is still tracking below average, at 73 percent of average. This total reflects how very dry conditions were in the basin early in the water year.

Storage in the seven reservoirs used in this report remains well below average. At the end of January storage volumes were just 72 percent of average, which is 67 percent of the storage reported last year at this time. Overall the February 1 seasonal streamflow forecasts for the Gunnison basin were slightly lower than those issued on January 1. April to July runoff volumes are expected to range from 47 percent of normal at Tomichi Creek in the headwaters of the Gunnison River to 69 percent of normal on the Lake Fork at Gateview. The current forecast for the Slate River near Crested Butte dropped 12 percentage points from the forecast issued on January 1. It is now expected to flow at 66 percent of normal from April to July.

GUNNISON RIVER BASIN
Streamflow Forecasts - February 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Taylor Park Reservoir Inflow (2)	APR-JUL	38	53	65	66	78	98	99
Slate R nr Crested Butte	APR-JUL	36	47	55	66	64	78	83
East R at Almont	APR-JUL	67	93	113	62	135	170	182
Gunnison R nr Gunnison (2)	APR-JUL	119	175	220	60	270	355	370
Tomichi Ck at Sargents	APR-JUL	7.4	13.6	19.0	63	25	36	30
Cochetopa Ck bl Rock Ck nr Parlin	APR-JUL	2.4	5.8	9.0	60	12.9	19.8	15.0
Tomichi Ck at Gunnison	APR-JUL	6.7	21	35	47	53	85	74
Lake Fk at Gateview	APR-JUL	52	71	85	69	101	126	123
Blue Mesa Reservoir Inflow (2)	APR-JUL	215	320	400	59	490	645	675
Paonia Reservoir Inflow (2)	MAR-JUN	22	39	52	54	67	94	96
	APR-JUL	21	38	53	55	70	99	97
NF Gunnison R nr Somerset (2)	APR-JUL	102	145	178	61	215	275	290
Surface Ck at Cedaredge	APR-JUL	6.9	9.1	10.8	64	12.6	15.6	16.8
Ridgway Reservoir Inflow (2)	APR-JUL	40	56	68	67	81	103	101
Uncompahgre R at Colona (2)	APR-JUL	38	63	83	61	106	145	137
Gunnison R nr Grand Junction (2)	APR-JUL	410	635	815	55	1020	1350	1480

GUNNISON RIVER BASIN
Reservoir Storage (1000 AF) - End of January

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BLUE MESA	830.0	327.7	545.1	493.3
CRAWFORD	14.0	1.4	5.9	8.2
FRUITGROWERS	3.6	1.4	3.5	3.4
FRUITLAND	9.2	1.0	2.2	1.8
MORROW POINT	121.0	105.2	113.5	113.4
PAONIA	15.4	1.3	0.4	4.7
RIDGWAY		NO REPORT		
TAYLOR PARK	106.0	56.6	65.8	66.7

GUNNISON RIVER BASIN
Watershed Snowpack Analysis - February 1, 2013

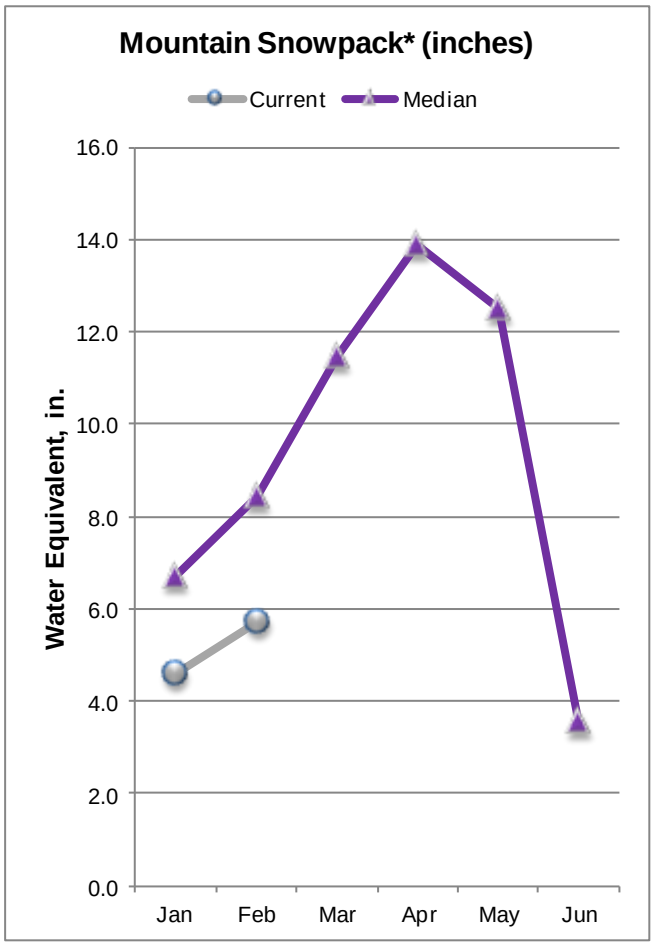
Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
UPPER GUNNISON BASIN	15	94	72
SURFACE CREEK BASIN	3	109	82
UNCOMPAHGRE BASIN	4	101	85
TOTAL GUNNISON RIVER BASI	19	96	75

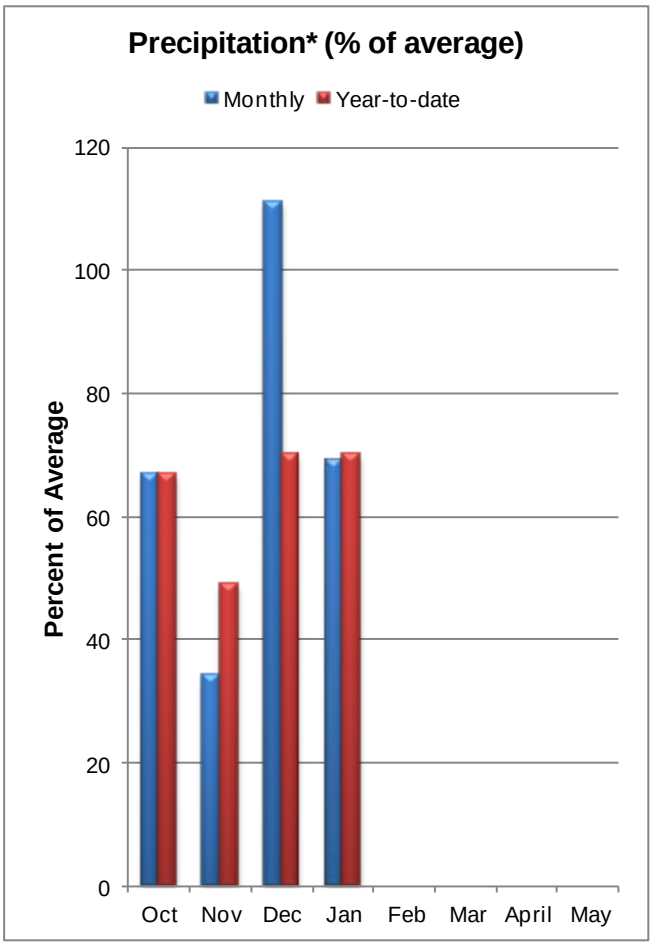
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.
(3) - Median value used in place of average.

UPPER COLORADO RIVER BASIN
as of February 1, 2013





*Based on selected stations

The storm system that moved through the state at the end of January did not provide the large boost to the Colorado River basin's snowpack that some of the more southern basins received. Total snow accumulation measured at the SNOTEL sites in the basin during January was only 84 percent of normal and the overall snowpack percentage actually decreased 1 percentage point from the last months report. As of February 1 the snowpack in the basin was at 67 percent of normal and 89 percent of last year's snowpack at this same time. The sub basins vary this month from 58 percent of normal in the Blue River basin to82 percent of normal in the Plateau Creek drainage. January recorded precipitation in the basin that was just 69 percent of average and the year to date precipitation total remained at 70 percent of average for the second consecutive month.

Reservoir storage in the Colorado River basin as of February 1 was just 67 percent of average. Total storage volumes in the basin have declined every month so far this water year. February 1 streamflow forecasts across the basin have decreased an average of 7 percentage points from those issued on January 1. The current forecasts range from 60 percent of normal for the Inflow to Ruedi Reservoir to 73 percent of normal for the Inflow to Lake Granby. The forecast for the Inflow to Willow Creek Reservoir dropped 11 percentage points from what was forecast just a month ago, the current forecast calls for 70 percent of normal flows for the April to July period.

UPPER COLORADO RIVER BASIN
Streamflow Forecasts - February 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Lake Granby Inflow (2)	APR-JUL	104	136	160	73	186	230	220
Willow Ck Reservoir Inflow (2)	APR-JUL	17.5	26	33	70	41	53	47
Williams Fk Reservoir Inflow (2)	APR-JUL	42	58	70	72	83	105	97
Blue R bl Dillon (2)	APR-JUL	69	95	115	71	137	173	163
Blue R bl Green Mountain Reservoir (	APR-JUL	117	161	195	71	230	295	275
Muddy Ck bl Wolford Mtn Resv (2)	APR-JUL	19.6	28	35	65	42	55	54
Eagle R bl Gypsum (2)	APR-JUL	140	194	235	70	280	355	335
Colorado R nr Dotsero (2)	APR-JUL	555	780	955	68	1150	1470	1400
Ruedi Reservoir Inflow (2)	APR-JUL	52	70	84	60	99	124	139
Roaring Fk at Glenwood Springs (2)	APR-JUL	275	365	435	63	510	635	690
Colorado R nr Cameo (2)	APR-JUL	915	1240	1490	63	1760	2200	2350

UPPER COLORADO RIVER BASIN
Reservoir Storage (1000 AF) - End of January

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
DILLON	254.0	171.9	242.7	221.3
LAKE GRANBY	465.6	177.4	370.5	300.7
GREEN MOUNTAIN	146.8	55.2	80.4	80.3
HOMESTAKE	43.0	0.3	8.2	27.7
RUEDI	102.0	62.8	76.1	73.7
VEGA		NO REPORT		
WILLIAMS FORK	97.0	42.5	80.1	59.5
WILLOW CREEK	9.1	6.6	7.1	6.4

UPPER COLORADO RIVER BASIN
Watershed Snowpack Analysis - February 1, 2013

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
BLUE RIVER BASIN	9	75	58
UPPER COLORADO RIVER BASI	31	85	65
MUDDY CREEK BASIN	3	89	75
PLATEAU CREEK BASIN	3	109	82
ROARING FORK BASIN	7	89	70
WILLIAMS FORK BASIN	3	92	65
WILLOW CREEK BASIN	4	81	75
TOTAL COLORADO RIVER BASI	41	88	67

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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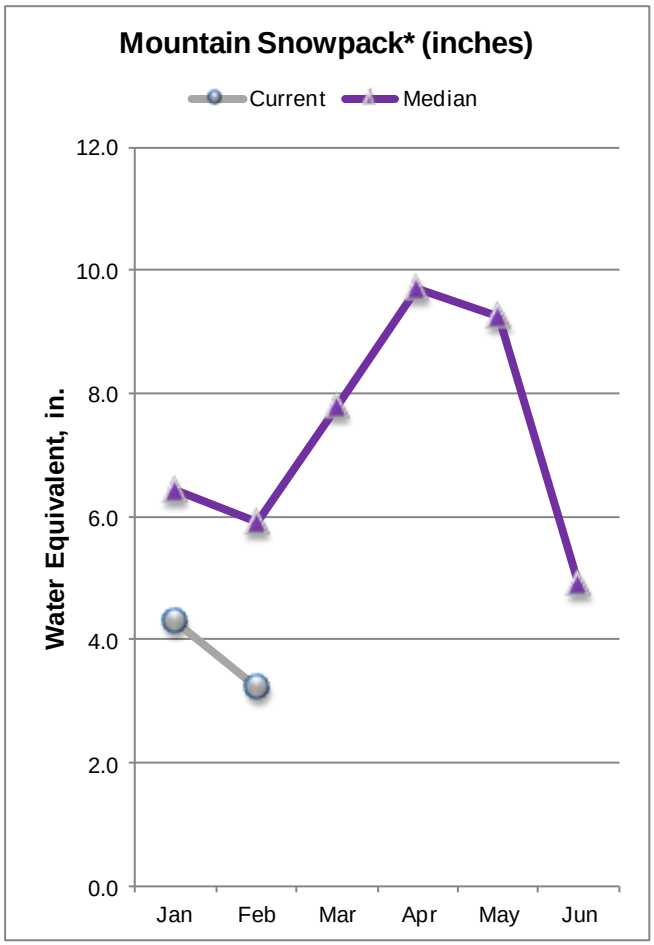
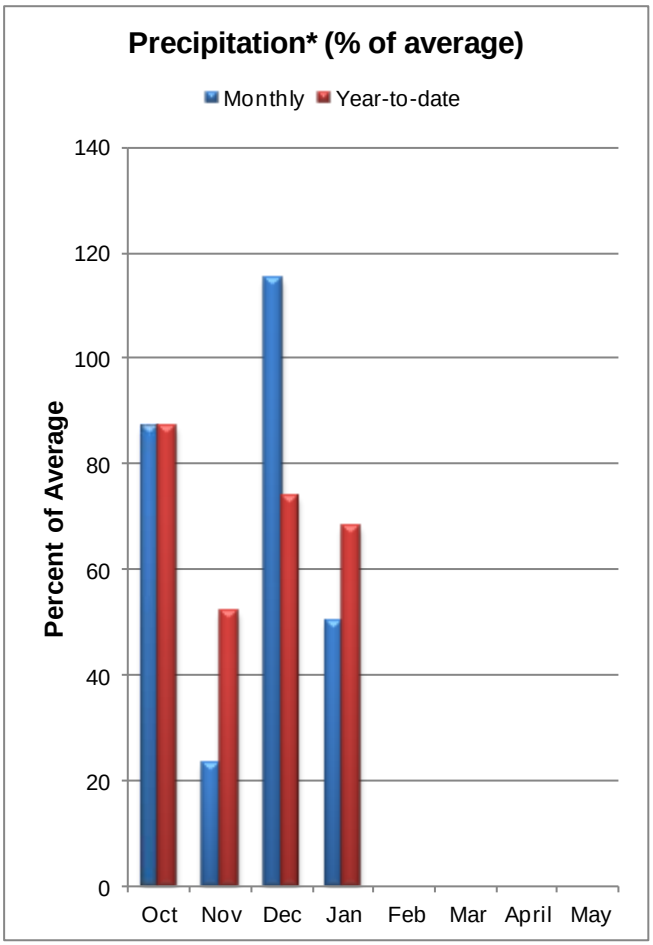
SOUTH PLATTE RIVER BASIN
as of February 1, 2013





*Based on selected stations

Overall the South Platte River basin did not receive the large boost in snowpack totals that many of the other basins in the state saw at the end of January. In fact snow accumulation for the month of January, measured at the SNOTEL sites in the basin, was just 46 percent of normal. The total snowpack percentage measured on February 1 was just 54 percent of normal, the lowest percentage recorded in the state. The basin shows a good degree of variability in the snowpack totals recorded in the sub basins. The Cache la Poudre and Big Thompson drainages measured 58 and 53 percent of normal respectively, while Clear Creek reported 63 percent of normal and the Upper South Platte was at only 42 percent of normal. January precipitation totals in the South Platte basin were 50 percent of average for the month causing the year to date precipitation totals to drop to 68 percent of normal as of February 1.

Reservoir storage at the end of January was at 80 percent of average and74 percent of last year's storage. At this time last year raw storage volumes in the South Platte were 908,000 acre feet compared to the 659,000 acre feet reported this year. February 1 streamflow forecasts for the South Platte basin, project April to July flows in the basin to be between 44 to 64 percent of normal. St. Vrain Creek at Lyons is forecast to have flows that will be 59 percent of normal and Boulder Creek near Orodell and South Boulder Creek near Eldorado Springs are expected to reach 60 percent of normal.

SOUTH PLATTE RIVER BASIN
Streamflow Forecasts - February 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Antero Reservoir Inflow (2)	APR-JUL	3.2	4.9	6.5	45	8.6	13.0	14.5
	APR-SEP	3.8	5.9	7.9	44	10.6	16.3	17.8
Spinney Mountain Res Inflow (2)	APR-JUL	13.4	20	27	56	36	54	48
	APR-SEP	15.8	25	33	54	44	69	61
Elevenmile Canyon Res Inflow (2)	APR-JUL	13.4	21	28	56	38	59	50
	APR-SEP	15.5	25	34	53	47	75	64
Cheesman Lake Inflow (2)	APR-JUL	25	40	54	54	73	116	100
	APR-SEP	31	49	67	53	92	146	126
South Platte R at South Platte (2)	APR-JUL	39	65	91	51	128	210	180
	APR-SEP	49	81	114	51	160	265	225
Bear Ck ab Evergreen	APR-JUL	4.5	7.3	10.3	63	14.4	24	16.4
	APR-SEP	6.4	10.3	14.1	67	19.4	31	21
Bear Ck at Morrison	APR-JUL	4.6	8.3	12.4	56	18.5	34	22
	APR-SEP	6.4	11.2	16.5	59	24	43	28
Clear Ck at Golden	APR-JUL	38	55	67	64	79	96	105
	APR-SEP	45	66	81	63	96	117	128
St. Vrain Ck at Lyons (2)	APR-JUL	31	43	52	59	61	73	88
	APR-SEP	37	52	62	60	72	87	103
Boulder Ck nr Orodell (2)	APR-JUL	22	29	33	61	37	44	54
	APR-SEP	26	34	39	62	44	52	63
S Boulder Ck nr Eldorado Springs(2)	APR-JUL	40	45	48	61	51	56	79
	APR-SEP	48	54	58	64	62	68	91
Big Thompson R at Canyon Mouth (2)	APR-JUL	24	39	49	54	59	74	90
	APR-SEP	32	50	62	58	74	92	107
Cache La Poudre at Canyon Mouth (2)	APR-JUL	67	113	144	64	175	220	225
	APR-SEP	73	124	159	64	194	245	250

SOUTH PLATTE RIVER BASIN
Reservoir Storage (1000 AF) - End of January

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ANTERO	19.9	15.2	15.9	16.4
BARR LAKE	30.1	13.9	26.7	24.0
BLACK HOLLOW	6.5	2.3	3.8	3.9
BOYD LAKE	48.4	15.6	40.7	32.1
BUTTON ROCK/RALPH PRICE	16.2	14.3	14.0	13.0
CACHE LA POUDRE	10.1	3.1	10.3	7.2
CARTER	108.9	69.6	58.8	84.6
CHAMBERS LAKE	8.8	1.4	6.3	3.0
CHEESMAN	79.0	43.9	72.9	59.7
COBB LAKE	22.3	11.8	19.4	13.9
ELEVEN MILE	98.0	99.4	100.1	95.9
EMPIRE	36.5	26.0	34.6	22.8
FOSSIL CREEK	11.1	9.0	10.5	6.8
GROSS	41.8	31.2	26.7	26.0
HALLIGAN	6.4	3.9	5.0	4.3
HORSECREEK		NO REPORT		
HORSETOOTH	149.7	73.2	120.4	99.0
JACKSON	26.1	23.2	21.7	26.1
JULESBURG	20.5	15.5	17.4	18.8
LAKE LOVELAND	10.3	3.0	9.2	8.7
LONE TREE	8.7	5.4	6.6	6.4
MARIANO	5.4	2.4	3.2	4.2
MARSHALL	10.0	5.7	7.3	5.1
MARSTON	13.0	12.5	5.7	12.8
MILTON	23.5	6.3	20.0	15.5
POINT OF ROCKS	70.6	40.8	65.2	57.0
PREWITT	28.2	6.9	19.7	19.3
RIVERSIDE	55.8	31.5	44.6	41.7
SPINNEY MOUNTAIN	49.0	24.6	43.4	33.3
STANDLEY	42.0	28.0	36.5	33.1
TERRY LAKE	8.0	4.8	6.0	5.3
UNION	13.0	5.5	12.3	10.6
WINDSOR	15.2	9.6	11.3	10.8

SOUTH PLATTE RIVER BASIN
Watershed Snowpack Analysis - February 1, 2013

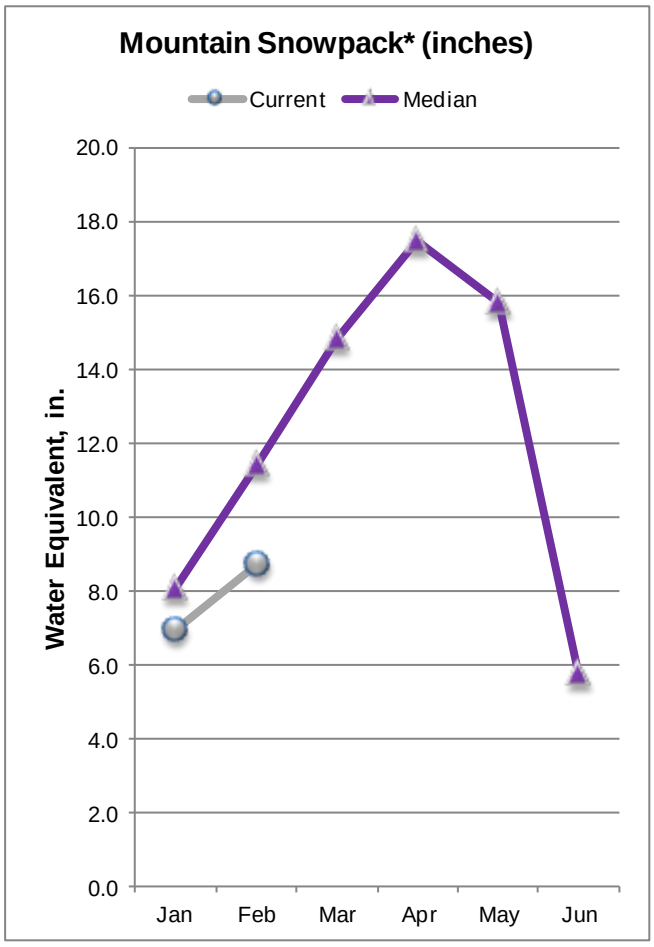
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
BIG THOMPSON BASIN	7	60	53
BOULDER CREEK BASIN	5	59	59
CACHE LA POUDRE BASIN	9	59	58
CLEAR CREEK BASIN	3	75	63
SAINT VRAIN BASIN	3	41	46
UPPER SOUTH PLATTE BASIN	11	52	42
TOTAL SOUTH PLATTE BASIN	38	57	54

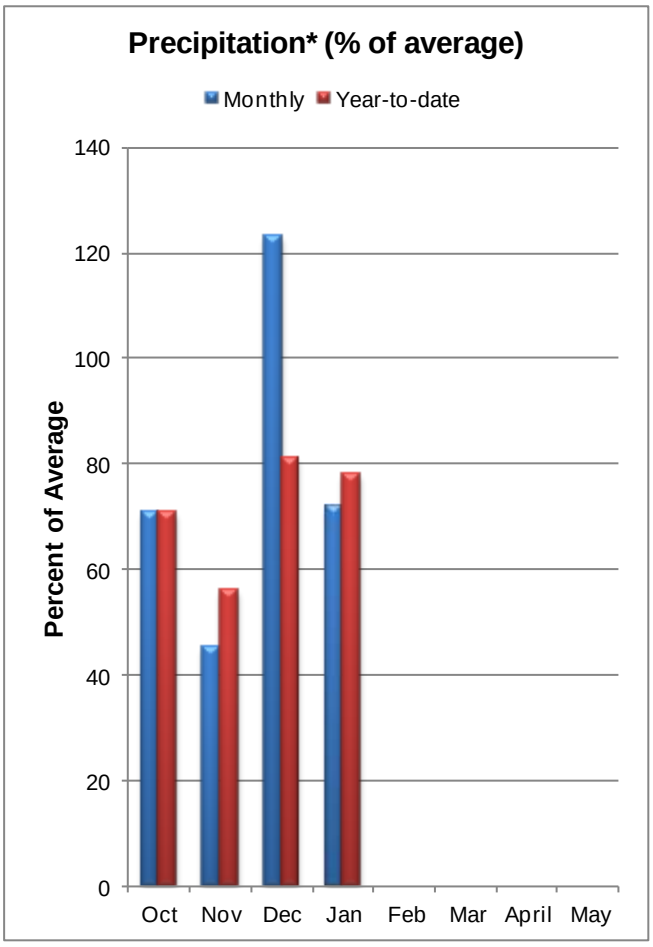
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.
(3) - Median value used in place of average.

YAMPA, WHITE, NORTH PLATTE AND LARAMIE RIVER BASINS as of February 1, 2013





*Based on selected stations

While the combined Yampa, White, North Platte, and Laramie River basins received some welcome snowfall in late January; total snow accumulation, as measured at the SNOTEL sites in the basin, was only 70 percent of normal for the month. As of February 1 the snowpack in the combined basins measured 76 percent of normal and 105 percent of last year's snowpack at this same time. Precipitation measured in the mountains of these basins during January was 72 percent of average. Year to date precipitation totals had fallen to 78percent of average as of February 1, but these basins still boast the highest year to date totals, as a percent of average, in the state.

Storage levels in the reservoirs in these basins remain above average. The 32, 000 acre feet stored at of the end of January in the two reservoirs, equates to 103 percent of the average volumes typically stored at this time of year. February 1 streamflow forecasts reflect the below normal snowpack and precipitation reports. Current forecasts have declined significantly from those issued last month and are well below normal for all forecast points within the combined basins. The February 1 forecasts range from 52 percent of normal for the Little Snake River near Dixon to 72 percent of normal forecast for the Elk River near Milner, Colorado

YAMPA, WHITE, AND NORTH PLATTE RIVER BASINS
Streamflow Forecasts - February 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
North Platte R nr Northgate	APR-JUL	15.0	65	112	50	159	230	225
	APR-SEP	20	71	123	49	175	250	250
Laramie R nr Woods	APR-JUL	41	64	80	70	96	119	115
	APR-SEP	46	71	88	70	105	130	126
Yampa R ab Stagecoach Reservoir (2)	APR-JUL	6.4	10.6	14.0	61	17.9	24	23
Yampa R at Steamboat Springs (2)	APR-JUL	115	148	172	66	198	240	260
Elk R nr Milner	APR-JUL	142	192	230	72	270	340	320
Elkhead Ck ab Long Gulch	APR-JUL	20	34	45	62	58	80	73
Yampa R nr Maybell (2)	APR-JUL	315	460	570	61	695	900	935
Little Snake R nr Slater (2)	APR-JUL	57	79	95	61	113	142	156
Little Snake R nr Savery (2)	APR-JUL	83	136	180	52	230	315	345
Little Snake R nr Lily (2)	APR-JUL	81	137	183	53	235	325	345
White R nr Meeker	APR-JUL	115	155	185	66	220	270	280

YAMPA, WHITE, AND NORTH PLATTE RIVER BASINS
Reservoir Storage (1000 AF) - End of January

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
STAGECOACH	36.4	28.9	31.1	25.1
YAMCOLO	8.7	3.2	6.6	6.2

YAMPA, WHITE, AND NORTH PLATTE RIVER BASINS
Watershed Snowpack Analysis - February 1, 2013

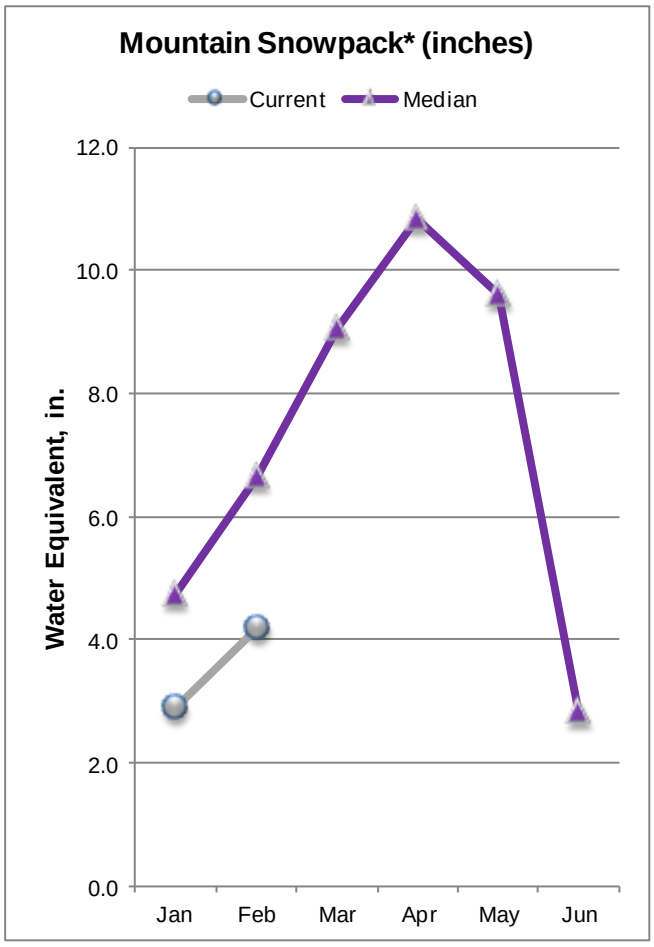
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
LARAMIE RIVER BASIN	3	73	71
NORTH PLATTE RIVER BASIN	7	97	70
TOTAL NORTH PLATTE BASIN	9	93	71
ELK RIVER BASIN	1	114	76
YAMPA RIVER BASIN	11	114	78
WHITE RIVER BASIN	6	116	77
TOTAL YAMPA AND WHITE RIV	16	114	77
LITTLE SNAKE RIVER BASIN	8	104	77
TOTAL YAMPA, WHITE AND NO	30	104	76

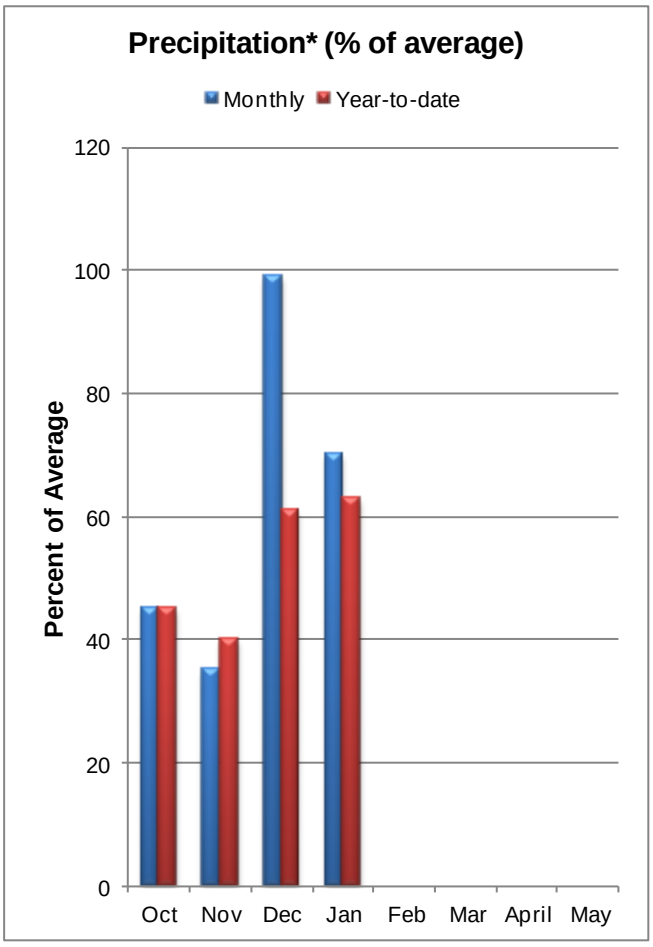
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.
(3) - Median value used in place of average.

ARKANSAS RIVER BASIN
as of February 1, 2013





*Based on selected stations

Snowpack measurements in the Arkansas River basin were 63 percent of normal as of February 1. This is a marginal increase from the January 1 readings which were 61 percent of normal. Snow accumulation within the basin varies greatly between the sub basins. The Cucharas and Huerfano basins snowpack dropped 17 percentage points from the January 1 report. As of February 1 the snowpack was just 68 percent of normal. The Purgatoire basin saw a nominal increase, from last month's snowpack report of 78 percent of normal to 81 percent of normal reported on February 1. The Upper Arkansas sub basin increased from 55 percent of normal on January 1 to 61 percent of normal on February 1.Year to date precipitation remains well below average in the basin at just 63 percent of average as of February 1. Precipitation received during January was only 70 percent of the average for the month.

Reservoir storage in the Arkansas basin is just 57 percent of average and 64 percent of last year's storage. At the end of January the reservoirs were holding 311,000 acre feet of water, at the same time last year the reservoirs were storing 487,000 acre feet of water. February 1 streamflow forecasts in the Arkansas basin are some of the lowest in the state. The April to July forecasts range from 46 percent of normal flows predicted for the Cucharas River near La Veta to 58 percent of normal expected for the Arkansas River above Pueblo.

ARKANSAS RIVER BASIN
Streamflow Forecasts - February 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Chalk Ck nr Nathrop	APR-JUL	4.8	8.6	11.8	56	15.5	22	21
	APR-SEP	6.7	11.3	15.1	58	19.4	27	26
Arkansas R at Salida (2)	APR-JUL	85	114	137	57	162	200	240
	APR-SEP	109	146	175	59	205	255	295
Grape Ck nr Westcliffe	APR-JUL	0.5	3.8	8.0	50	13.6	25	15.9
	APR-SEP	1.4	5.5	9.8	50	15.3	26	19.6
Arkansas R ab Pueblo (2)	APR-JUL	102	162	210	58	265	355	360
	APR-SEP	138	210	265	58	330	435	455
Huerfano R nr Redwing	APR-JUL	2.8	4.8	6.5	55	8.4	11.7	11.9
	APR-SEP	4.0	6.4	8.4	55	10.6	14.4	15.2
Cucharas R nr La Veta	APR-JUL	1.3	3.5	5.6	46	8.2	12.9	12.2
	APR-SEP	1.8	4.2	6.5	46	9.3	14.2	14.1
Purgatoire R at Trinidad (2)	MAR-JUL	3.1	9.9	16.6	45	25	41	37
	APR-SEP	4.4	12.8	21	45	31	50	47

ARKANSAS RIVER BASIN
Reservoir Storage (1000 AF) - End of January

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ADOBE	62.0	6.8	34.3	31.1
CLEAR CREEK	11.4	6.8	7.3	6.4
CUCHARAS RESERVOIR	40.0	0.1	0.1	4.8
GREAT PLAINS	150.0	0.0	0.0	35.2
HOLBROOK	7.0	1.3	2.3	3.9
HORSE CREEK	27.0	0.0	0.0	12.2
JOHN MARTIN	616.0	26.3	31.8	120.9
LAKE HENRY	8.0	3.5	6.8	4.1
MEREDITH	42.0	24.0	29.9	16.2
PUEBLO	354.0	169.8	216.3	158.3
TRINIDAD	167.0	12.1	15.4	25.3
TURQUOISE	127.0	39.7	90.1	82.7
TWIN LAKES	86.0	20.6	52.8	44.8

ARKANSAS RIVER BASIN
Watershed Snowpack Analysis - February 1, 2013

Watershed	Number of Data Sites	This Year as % of Average: Last Yr	Average
UPPER ARKANSAS BASIN	10	78	61
CUCHARAS & HUERFANO RIVER	3	63	68
PURGATOIRE RIVER BASIN	2	65	81
TOTAL ARKANSAS RIVER BASI	14	72	63

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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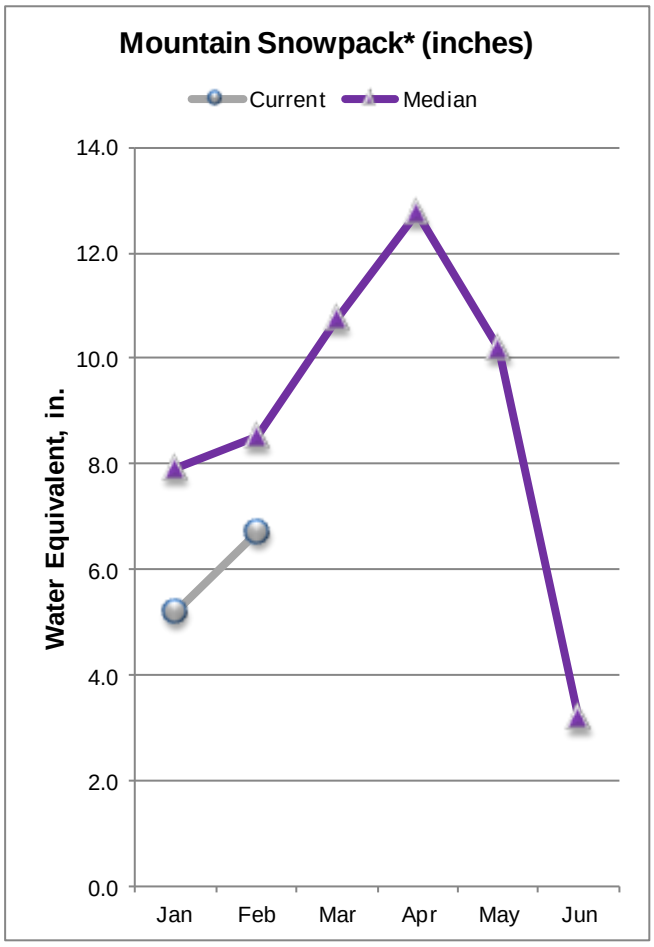
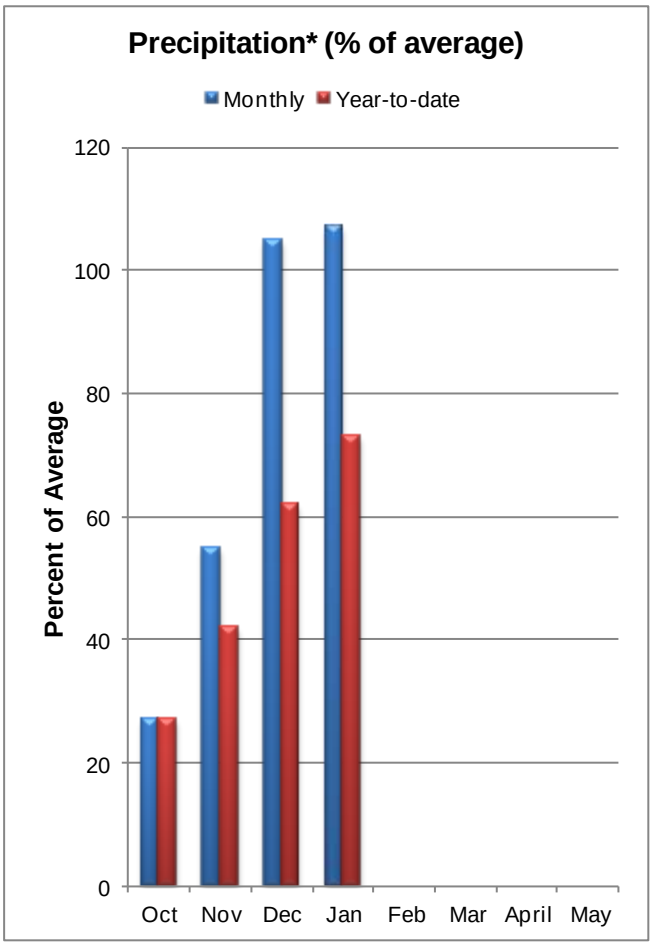
(3) - Median value used in place of average.

UPPER RIO GRANDE RIVER BASIN
as of February 1, 2013





*Based on selected stations

The Upper Rio Grande basin's snowpack was measured at 78 percent of normal on February 1; an increase of 13 percentage points from the January 1 report of 65 percent of normal. The Upper Rio Grande is one of only two basins in the state to have a significant increase in snowpack percentage this month. The majority of snow responsible for the boost to the basin's snowpack fell in the last 5 days of the month. The snowpack was at just 61 percent of normal on January 26th prior to the storm system hitting the region. Precipitation totals in the basin for the month of January reached 107 percent of average. This helped boost year to date precipitation to 73 percent of average as of February 1 up from 62 percent of average reported a month ago.

Reservoir storage in the Upper Rio Grande Basin is at just 51percent of average, it remains the lowest storage total as a percent of average statewide. At the end of January, the six reservoirs reported on in the Upper Rio Grande basin were storing 45, 000 acre feet of water, compared to last year's February 1 storage of 58,000 acre feet. The most recent April - July streamflow forecasts are calling for the Rio Grande River at Thirty Mile Bridge to flow at 79 percent of normal. Current April - September forecasts for the northeastern portion of the Upper Rio Grande basin are much lower. Streamflow volumes in this region are expected to range from 30 to 48 percent of normal.

UPPER RIO GRANDE BASIN
Streamflow Forecasts - February 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Rio Grande at Thirty Mile Bridge (2)	APR-SEP	63	85	101	78	119	147	129
	APR-JUL	57	75	89	79	104	129	113
Rio Grande at Wagon Wheel Gap (2)	APR-SEP	155	215	260	77	310	390	340
SF Rio Grande at South Fork (2)	APR-SEP	61	81	96	76	112	139	127
Rio Grande nr Del Norte (2)	APR-SEP	225	315	385	75	460	585	515
Saguache Ck nr Saguache (2)	APR-SEP	10.4	17.3	23	72	30	41	32
Alamosa Ck ab Terrace Reservoir	APR-SEP	32	43	51	75	60	74	68
La Jara Ck nr Capulin	MAR-JUL	3.3	5.0	6.4	72	7.9	10.5	8.9
Trinchera Ck ab Turners Ranch	APR-SEP	3.1	4.5	5.6	44	6.8	8.9	12.6
Sangre de Cristo Ck (2)	APR-SEP	0.7	2.8	4.9	30	7.6	12.8	16.3
Ute Ck nr Fort Garland	APR-SEP	2.2	4.3	6.1	48	8.2	11.9	12.8
Platoro Reservoir Inflow (2)	APR-JUL	31	39	45	80	51	62	56
Conejos R nr Mogote (2)	APR-SEP	96	126	148	76	172	210	194
San Antonio R at Ortiz	APR-SEP	3.4	6.2	8.6	55	11.4	16.1	15.6
Los Pinos R nr Ortiz	APR-SEP	31	44	53	73	63	80	73
Culebra Ck at San Luis (2)	APR-SEP	3.0	6.2	9.1	40	12.5	18.6	23
Costilla Reservoir Inflow (2)	MAR-JUL	3.6	5.4	6.8	61	8.4	11.0	11.1
Costilla Ck nr Costilla (2)	MAR-JUL	6.3	10.5	14.0	54	18.0	25	26

UPPER RIO GRANDE BASIN
Reservoir Storage (1000 AF) - End of January

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CONTINENTAL	27.0	7.4	4.0	5.8
PLATORO	60.0	8.8	15.2	24.7
RIO GRANDE	51.0	12.0	17.2	16.5
SANCHEZ	103.0	6.3	8.1	24.1
SANTA MARIA	45.0	7.3	8.0	10.5
TERRACE	18.0	3.0	5.0	6.1

UPPER RIO GRANDE BASIN
Watershed Snowpack Analysis - February 1, 2013

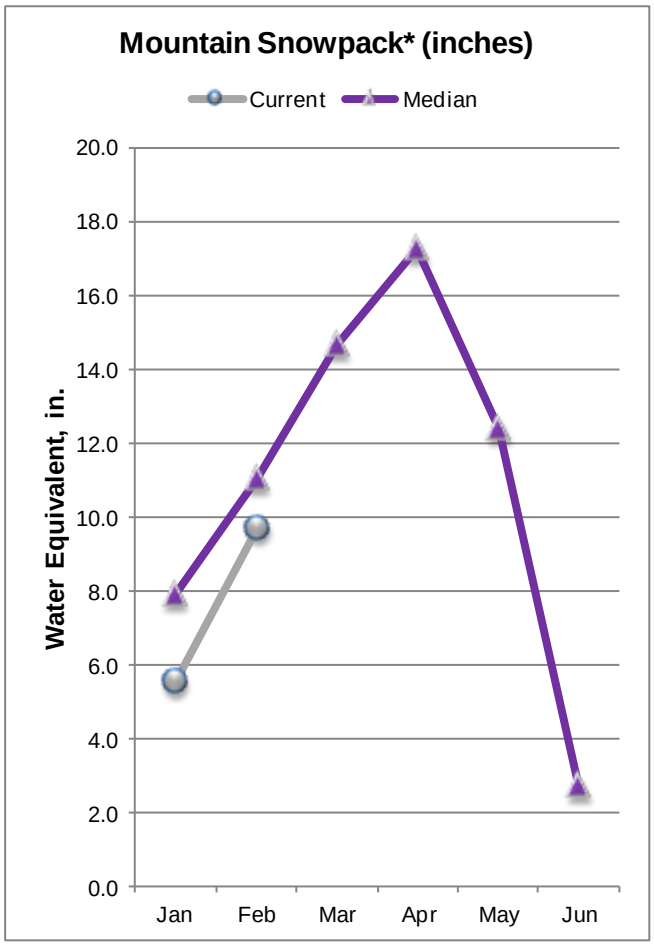
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
ALAMOSA CREEK BASIN	2	118	75
CONEJOS & RIO SAN ANTONIO	4	110	78
CULEBRA & TRINCHERA CREEK	4	87	74
UPPER RIO GRANDE BASIN	11	100	78
TOTAL UPPER RIO GRANDE BA	20	98	78

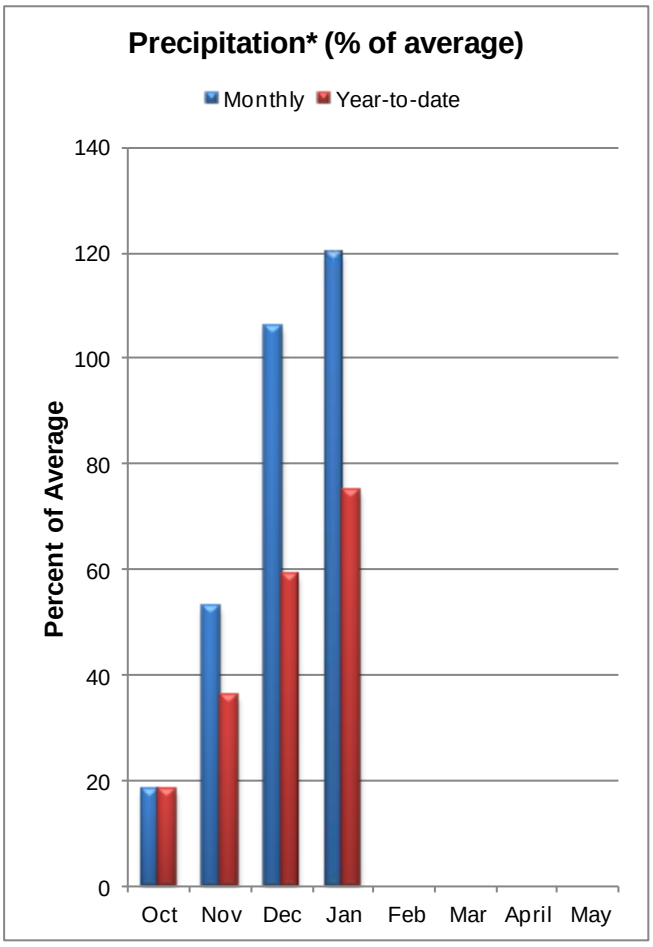
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.
(3) - Median value used in place of average.

SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS as of February 1, 2013





*Based on selected stations

Of all the major basins in Colorado, the combined San Miguel, Dolores, Animas and San Juan basins were favored the most by the storm system that hit the state in late January. Overall snow accumulation during January, as measured at the SNOTEL sites located in the basins, was a whopping 139 percent of normal! In just one day, from January 28th to January 29th, the snowpack jumped from 78 percent of normal to 87 percent of normal. Reports from the SNOTEL sites and snow courses in the basins put the total snowpack percentage at a respectable 88 percent of normal as of February 1. This is the highest snowpack percentage reported statewide. Mountain precipitation recorded during January was 120 percent of average. In fact, monthly precipitation was above average for the second month in a row in these basins. This helped boost the year to date total to 75 percent of average as of February 1.

Reservoir storage volumes in the basins remained relatively constant compared to last month. Storage in these basins was at 65 percent of average and 42 percent of capacity at the end of January. Thanks to the abundant snowfall received in these basins streamflow forecasts have improved for all forecast points within the basins. The forecasts issued on February 1 are still below normal however, and range from 68 percent of normal for the Inflow to McPhee Reservoir to 79 percent of normal for the Inflow to Vallecito Reservoir.

SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS
Streamflow Forecasts - February 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Dolores R at Dolores	APR-JUL	100	141	174	71	210	270	245
McPhee Reservoir Inflow (2)	APR-JUL	106	158	200	68	245	325	295
San Miguel R nr Placerville	APR-JUL	51	72	88	69	106	135	128
Gurley Reservoir Inlet	APR-JUL	6.2	9.8	12.7	77	16.0	22	16.4
Cone Reservoir Inlet	APR-JUL	0.7	1.5	2.3	77	3.4	5.4	3.0
Lilylands Reservoir Inlet	APR-JUL	0.8	1.2	1.5	78	1.9	2.6	1.9
Rio Blanco at Blanco Diversion (2)	APR-JUL	25	34	42	78	50	64	54
Navajo R at Oso Diversion (2)	APR-JUL	29	41	50	77	60	77	65
San Juan R nr Carracas (2)	APR-JUL	157	225	280	74	340	440	380
Piedra R nr Arboles	APR-JUL	88	123	151	72	182	230	210
Vallecito Reservoir Inflow (2)	APR-JUL	102	131	154	79	178	215	194
Navajo Reservoir Inflow (2)	APR-JUL	315	435	525	71	625	790	735
Animas R at Durango	APR-JUL	185	245	290	70	340	420	415
Lemon Reservoir Inflow (2)	APR-JUL	24	33	40	73	47	60	55
La Plata R at Hesperus	APR-JUL	9.4	13.1	16.0	70	19.2	24	23
Mancos R nr Mancos (2)	APR-JUL	10.9	16.5	21	68	26	34	31

SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS
Reservoir Storage (1000 AF) - End of January

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
GROUNDHOG	22.0	3.6	4.8	12.0
JACKSON GULCH	10.0	1.4	3.7	4.6
LEMON	40.0	8.1	14.2	20.2
MCPHEE	381.0	190.3	287.9	274.4
NARRAGUINNEP	19.0	5.6	14.8	12.7
VALLECITO	126.0	43.4	76.4	59.4

SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS
Watershed Snowpack Analysis - February 1, 2013

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
ANIMAS RIVER BASIN	8	104	80
DOLORES RIVER BASIN	6	124	96
SAN MIGUEL RIVER BASIN	5	111	91
SAN JUAN RIVER BASIN	4	113	91
TOTAL SAN MIGUEL, DOLORES AN JUAN RIVER BASINS	22	112	88

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.
(3) - Median value used in place of average.

We had so many great photo entries that we thought we would include some honorable mentions here.

This photo is courtesy of Lars Santana and Elizabeth With, NRCS employees of Montrose and Gunnison, CO respectively. It shows them having way too much fun while surveying the Park Cone snow course near Taylor Park Reservoir on 1/29/2013.

This photo was taken at the Long Draw Reservoir SNOTEL site on 1/24/2013 during a maintenance trip to get the site back up and reporting. Pictured is Mike Ardison, Hydrologic Technician out of Denver, CO.

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Denver, CO 80225-0426

In addition to the basin outlook reports, water supply forecast information for the Western United States is available from the Natural Resources Conservation Service and the National Weather Service monthly, January through May. The information may be obtained from the Natural Resources Conservation Service web page at http://www.wcc.nrcs.usda.gov/wsf/westwide.html

Issued by

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Acting Chief
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Colorado
Basin Outlook Report

Natural Resources Conservation Service
Lakewood, CO